# STCG SUBCON SUBGROUP MEETING

September 24, 1997

## Welcome/Introduction

Fred Serier welcomed the group and stated that the major goal of the meeting was to endorse the FY98 Subcon technology needs.

## Groundwater Technology Needs

Kim Koegler led the discussion on the groundwater technology needs. Comments were recorded by the facilitator and given to Larry Bagaasen for incorporation into the technology needs package. Kim requested that Subgroup members send all their comments in writing to minimize errors in interpretation.

A list of general caveats and assumptions will be included in a cover letter or an appendix. For example, we should avoid increasing human health and ecological risks. We must also include instructions on how to respond to the needs.

Cost-Effective, In-Situ Remediation of Carbon Tetrachloride in the Vadose Zone and Groundwater - Be sure that what you add and what you end up with are not worse than what you started with.

Improved, Real-Time, In-Line Detection of Carbon Tetrachloride in Process Water - Following much discussion, it was determined that the functional requirement detection level will be based on regulatory requirements.

Improved, Real-Time, In-Line Detection of Hexavalent Chromium in Process Water - Dirk Dunning stated that the Record of Decision (ROD) must be readdressed. This is an issue for the Hanford Advisory Board (HAB).

## Remedial Action/Waste Disposal Technology Needs

Kim Koegler led the discussion on the remedial action/waste disposal technology needs. Comments were recorded by the facilitator and given to Larry Bagaasen for incorporation into the technology needs package. Kim requested that Subgroup members send all their comments in writing to minimize errors in interpretation.

Detection and Delineation of Burial Ground Contents - Dirk Dunning said that the need is very general, but it looks good. The purpose is to look for objects and the extent of the disturbed area. Other waste sites should be added. Barbara Harper also suggested that we make sure this need is distinctly different from the one called

Improved, In-Situ Characterization to Determine the Extent of Soil Contamination of One or More of the Following Heavy Metals: Hexavalent Chromium, Mercury, and Lead.

Kim agreed to use comments from Bryan Foley to rewrite the need called Long-Life Waste Isolation Surface Barrier and then to send it out to the Subgroup members for review.

Soil Flushing Technology Discussions

Shas Mattigod and Jeff Serne requested Subgroup endorsement of a proposal to EM-50 to proceed with bench-scale testing of soil flushing with ion exchange in conjunction with the existing pump and treat in the 100-N Area. The purpose of the testing is to get enough data to see if it's worth proceeding to the next step. There are no FY98 funds available for this, but there could possibly be funds available in FY99.

Dirk Dunning stated a stakeholder concern that the technology could mobilize the strontium and then not capture the entire plume, so it could then enter the river. A physical barrier would have to be included. Unfortunately, the barrier would have to be too close to the river, and bank erosion over time could release contamination into the river. A freeze barrier was suggested as a possible alternative.

It was also suggested that ion exchange would have a low efficiency since it would remove all the ions from the saline solution that is injected. Chemical precipitation may be used instead. The situation would be controlled by using a low injection/extraction ratio and a funnel-and-gate design to channel the groundwater flow.

After the ROD is signed, EM-40 plans to hold a stakeholder workshop to determine which technologies should be considered. Soil flushing is already an option included in the CMS. If it is selected by the workshop participants as the preferred alternative, EM-40 would fund a treatability test.

Dennis Faulk and Mike Thompson do not endorse a field test of this technology. Ecology favors it. Dave Biancosino stated that we need a letter from Phil Staats and Mike Thompson in order to endorse the proposal at the next Subgroup meeting. It is probably not a large enough dollar amount to warrant a Management Council presentation.

Science Needs Process

Shirley Rawson described this year's science needs process. EMSL staff at PNNL have been working with the EM-40 user programs at BHI to develop the FY98 strawman package of subsurface contamination science needs. More detailed needs statements should be ready in about two weeks. Shirley will e-mail or fax them to all

Subgroup members prior to the next Subcon meeting. Last year there were nine subsurface contamination science needs, and there will be no more than ten this year.

## Action Items

1. Put Jon Fruchter on the Subgroup meeting agenda next month for an update on In Situ Redox (Facilitator).

2. Rewrite the long-life waste isolation surface barrier technology need with Bryan Foley's comments and send it out to the Subgroup for review (Kim Koegler). Done.

3. Set up a joint meeting with the Tanks and Subcon Subgroup leads, key contractor support staff, and appropriate program managers to discuss and coordinate submission of the vadose zone and long-life waste isolation barrier technology needs (Facilitator). Done.

4. E-mail or fax the Subcon science needs to all Subgroup members prior to the next Subgroup meeting (Shirley Rawson). Done.

5. Send Barbara Harper a copy of the report on the BHI/PNNL science needs workshop (Kim Koegler).

## Next Meeting

The next meeting will be held on October 22, 1997 in the Bechtel Building. The specific location and agenda will be distributed prior to the meeting.

## Attendees

Larry Bagaasen (PNNL)
Gary Ballew (Pacific Rim Enterprise Center)
Dave Biancosino (DOE-RL)
Paul Danielson (Nez Perce Tribe)
Dirk Dunning (Oregon Office of Energy)
Linda Fassbender (PNNL)
Dennis Faulk (EPA)
Jon Fruchter (PNNL)
Barbara Harper (YIN)
Kim Koegler (BHI)
Wayne Martin (PNNL)
Shas Mattigod (PNNL)
Jay McConnaughey (WDFW)

David Olson (DOE-RL)
Shirley Rawson (PNNL)
Walter Remsen (BHI)
Fred Serier (DOE-RL)
Jeff Serne (PNNL)
Phil Staats (Ecology)
Arlene Tortoso (DOE-RL)
Nancy Uziemblo (Ecology)